

CLAIMS

What is Claimed is:

1. A method for maintaining coherence of location information in a
5 database of a distributed network of network jack units, comprising:
accurately configuring said location information of said database of said
distributed network of network jack units initially;
monitoring said distributed network of network jack units;
upon detecting a change in said distributed network, assessing the
10 significance of said change on the coherence of said location information of said
database of said distributed network of network jack units; and
upon determining that said change is significant, initiating an action to update said
database of said distributed network of network jack units.
- 15 2. The method as recited in Claim 1 wherein said database comprises a
centralized database.
3. The method as recited in Claim 1 wherein said accurately configuring
comprises:
20 accurately entering said location information at one of said network jack
units; and
providing said location information to said database.
4. The method as recited in Claim 3, wherein said providing comprises
25 an action selected from the group consisting essentially of:
uploading said location information from said network jack unit; and
transferring said location information from a storage entity.

5. The method as recited in Claim 4, wherein said storage entity comprises a portable data storage device.

5 6. The method as recited in Claim 5, wherein said portable data storage device comprises a device selected from the group consisting essentially of:

a first computer wherein said first computer comprises a computer used to perform said accurately entering;

a second computer;

10 a dedicated data storage and transfer entity; and

a device comprising a portable data storage medium.

7. The method as recited in Claim 1 wherein said monitoring is performed by a network management entity.

15 8. The method as recited in Claim 7, wherein said network management entity comprises an entity selected from the group consisting essentially of a central control station and a redundant control station.

20 9. The method as recited in Claim 1, wherein said detecting comprises discovering that one of said network jack units lacks locally associated location information.

25 10. The method as recited in Claim 9 wherein said assessing comprises inferring that said network jack unit does not have location information entered therein and wherein said action comprises providing said location information to said network jack unit.

11. The method as recited in Claim 1, wherein said detecting comprises discovering that one of said network jack units has locally associated location information wherein said locally associated location information is seemingly new.

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12. The method as recited in Claim 11, wherein said assessing comprises inferring that said network jack unit can have location information entered therein that is incorrect and wherein said action comprises:

alerting said location information can be corrupt; and

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correcting said location information.

13. The method as recited in Claim 1, wherein said detecting comprises discovering that a media access control (MAC) address of one of said network jack units differs from a MAC address listed for said network jack in said database.

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14. The method as recited in Claim 13, wherein said assessing comprises inferring that said network jack unit has had correct location information entered therein and wherein said action comprises updating said database.

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15. A method for monitoring a distributed network of network jack units to maintain coherence of location information in a database of said network, comprising:

polling one of said network jack units wherein said network jack unit has been known to a management entity performing said monitoring;

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upon detecting no response to said polling, watching for a reconnect event relating to said network jack unit; and

upon detecting said reconnect event, checking an identity of said network jack unit.

16. The method as recited in Claim 15 further comprising:
upon detecting that said identity differs from a value for an identity
associated with said network jack unit stored in said database, inferring that said
5 location information can be corrupt;
sending a corresponding alert; and
taking an action to investigate and correct said location information.

17. A method for monitoring a distributed network of network jack units to
10 maintain coherence of location information in a database of said network, comprising:
detecting a power loss to one of said network jack units; and
verifying said location information as related to said network jack unit.

18. The method as recited in Claim 17 wherein said method further
15 comprises:
detecting an event; and
responsive to detecting said event, checking for an indication of a
power loss, wherein said checking is performed prior to said detecting a power loss.

20 19. The method as recited in Claim 17 wherein said event comprises a
reboot event and wherein said checking comprises an action selected from the
group consisting essentially of checking for a power loss flag in a non-volatile
memory and checking a memory location for a corrupted pattern wherein said
memory location initiates with a pattern that corrupts on a power loss, and wherein
25 said non-volatile memory and said memory location are associated with said network
jack unit.

20. A method for monitoring a distributed network of network jack units to maintain coherence of location information in a database of said network, comprising:
detecting an attempt to move one of said network jack units; and
increasing a frequency of monitoring said network jack unit for a
5 disconnect transaction.

21. The method as recited in Claim 20 further comprising generating an alert.

10 22. The method as recited in Claim 20 wherein said network jack unit comprises a tamper sensor and wherein said detecting comprises sensing a signal from said tamper sensor.

23. A method for monitoring a distributed network of network jack units to
15 maintain coherence of location information in a database of said network, comprising:
detecting a change among table associations;
responsive to said detecting, performing a location mapping check;
upon detecting a location mapping change:
inferring that said network jack unit was selectively upgraded
20 and replaced; and
updating said database;
upon detecting no location mapping change, checking another port;
and
upon detecting a port swap, alerting a management entity.

25 24. A system for maintaining coherence of location information in a database of a distributed network of network jack units, comprising:

said database for storing said location information;
a network entity coupled to said database for providing access to said database and communication with said network jack units; and
a management entity coupled to said database and to said network jack units
5 through said network entity for monitoring said distributed network of network jacks wherein said management entity comprises a computer and wherein said system performs a computerized method for said maintaining coherence of said location information in said database of said distributed network of network jack units, said method comprising:
10 accurately configuring said location information of said database of said distributed network of network jack units initially;
monitoring said distributed network of network jack units;
upon detecting a change in said distributed network, assessing the significance of said change on the coherence of said location information of said
15 database of said distributed network of network jack units; and
upon determining that said change is significant, initiating an action to update said database of said distributed network of network jack units.

25. The system as recited in Claim 24 wherein said database comprises a
20 centralized database.

26. The system as recited in Claim 24 wherein said accurately configuring
comprises:
accurately entering said location information at one of said network jack
25 units; and
providing said location information to said database.

27. The system as recited in Claim 26, wherein said providing comprises an action selected from the group consisting essentially of:

uploading said location information from said network jack unit; and
transferring said location information from a storage entity.

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28. The system as recited in Claim 27, wherein said storage entity comprises a portable data storage device.

29. The system as recited in Claim 28, wherein said portable data storage
10 device comprises a device selected from the group consisting essentially of:

a first computer wherein said first computer comprises a computer
used to perform said accurately entering;

a second computer;

a dedicated data storage and transfer entity; and

15 a device comprising a portable data storage medium.

30. The system as recited in Claim 24 wherein said network management entity is selectively centralized and distributed.

20 31. The system as recited in Claim 30, wherein said network management entity is distributed and wherein said network management entity comprises a central control station and a redundant control station.

32. The system as recited in Claim 24, wherein said detecting comprises
25 discovering that one of said network jack units lacks locally associated location information.

33. The system as recited in Claim 32 wherein said assessing comprises inferring that said network jack unit does not have location information entered therein and wherein said action comprises providing said location information to said network jack unit.

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34. The system as recited in Claim 24, wherein said detecting comprises discovering that one of said network jack units has locally associated location information wherein said locally associated location information is seemingly new.

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35. The system as recited in Claim 34, wherein said assessing comprises inferring that said network jack unit can have location information entered therein that is incorrect and wherein said action comprises:

alerting said location information can be corrupt; and
correcting said location information.

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36. The system as recited in Claim 24, wherein said detecting comprises discovering that a media access control (MAC) address of one of said network jack units differs from a MAC address listed for said network jack in said database.

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37. The system as recited in Claim 36, wherein said assessing comprises inferring that said network jack unit has had correct location information entered therein and wherein said action comprises updating said database.

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38. In a computer system, a computer usable medium having a computer readable program code embodied therein for causing said computer system to execute a method for maintaining coherence of location information in a database of a distributed network of network jack units, said method comprising:

accurately configuring said location information of said database of said distributed network of network jack units initially;

monitoring said distributed network of network jack units;

upon detecting a change in said distributed network, assessing the

5 significance of said change on the coherence of said location information of said database of said distributed network of network jack units; and

upon determining that said change is significant, initiating an action to update said database of said distributed network of network jack units.

10 39. The computer usable medium as recited in Claim 38 wherein said database comprises a centralized database.

40. The computer usable medium as recited in Claim 38 wherein said accurately configuring comprises:

15 accurately entering said location information at one of said network jack units; and

providing said location information to said database.

41. The computer usable medium as recited in Claim 40, wherein said providing comprises an action selected from the group consisting essentially of:

20 uploading said location information from said network jack unit; and transferring said location information from a storage entity.

42. The computer usable medium as recited in Claim 41, wherein said storage entity comprises a portable data storage device.

43. The computer usable medium as recited in Claim 42, wherein said portable data storage device comprises a device selected from the group consisting essentially of:

a first computer wherein said first computer comprises a computer
5 used to perform said accurately entering;
a second computer;
a dedicated data storage and transfer entity; and
a device comprising a portable data storage medium.

10 44. The computer usable medium as recited in Claim 38 wherein said monitoring is performed by a network management entity.

45. The computer usable medium as recited in Claim 44, wherein said network management entity comprises an entity selected from the group consisting
15 essentially of a central control station and a redundant control station.

46. The computer usable medium as recited in Claim 38, wherein said detecting comprises discovering that one of said network jack units lacks locally associated location information.

20 47. The computer usable medium as recited in Claim 46 wherein said assessing comprises inferring that said network jack unit does not have location information entered therein and wherein said action comprises providing said location information to said network jack unit.

25 48. The computer usable medium as recited in Claim 38, wherein said detecting comprises discovering that one of said network jack units has locally

associated location information wherein said locally associated location information is seemingly new.

49. The computer usable medium as recited in Claim 48, wherein said
5 assessing comprises inferring that said network jack unit can have location information entered therein that is incorrect and wherein said action comprises:

alerting said location information can be corrupt; and
correcting said location information.

10 50. The computer usable medium as recited in Claim 38, wherein said detecting comprises discovering that a media access control (MAC) address of one of said network jack units differs from a MAC address listed for said network jack in said database.

15 51. The computer usable medium as recited in Claim 50, wherein said assessing comprises inferring that said network jack unit has had correct location information entered therein and wherein said action comprises updating said database.